

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1-16 (Cancelled)

17. (Currently amended) A method of producing a hydrodynamic type porous oil-impregnated bearing comprising a porous bearing body being formed with bearing surface on an inner peripheral surface thereof, said bearing surface having inclined hydrodynamic pressure generating grooves, and oil retained in pores of said bearing body by impregnation of lubricating oil or lubricating grease, said method comprising the steps of:

inserting a forming pattern in an inner peripheral surface of a cylindrical porous blank, said forming pattern having a first forming portion for forming a region of said hydrodynamic pressure generating grooves and a second forming portion for forming the other region in said bearing surface, applying a compacting pressure to said porous blank to press the inner peripheral surface of said porous blank against said forming pattern, thereby simultaneously forming the region of said hydrodynamic pressure generating grooves and the other region in said bearing surface on the inner peripheral surface of said porous blank, and

after forming said bearing surface, ~~releasing said forming pattern from the inner peripheral surface of said porous blank while utilizing the spring back of said porous blank due to removal of said compacting pressure~~ removing said compacting pressure

so as to utilize the spring-back of said porous blank in releasing said forming pattern from the inner peripheral surface of said porous blank.

18. (Original) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in claim 17, wherein said bearing surface has a first region in which a plurality of hydrodynamic pressure generating grooves inclined in one direction with respect to the axial direction are circumferentially disposed, a second region which is axially spaced from the first region and in which a plurality of hydrodynamic pressure generating grooves inclined in the other direction with respect to the axial direction are circumferentially disposed, and an annular smooth region positioned between the first and second regions.

19. (Original) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in claim 17, wherein said bearing surface has a first region in which a plurality of hydrodynamic pressure generating grooves inclined in one direction with respect to the axial direction are circumferentially disposed, a second region which is axially continuous to the first region and in which a plurality of hydrodynamic pressure generating grooves inclined in the other direction with respect to the axial direction are circumferentially disposed.

20. (Original) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in claim 17, wherein said porous blank is formed of a sintered metal.

21. (Original) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in Claim 20, wherein said sintered metal contains copper or iron, or both as a main component.

22. (Cancelled)

23. (Withdrawn) A method of producing a hydrodynamic type porous oil-impregnated bearing comprising a porous bearing body being formed with bearing surface on an inner peripheral surface thereof, said bearing surface having inclined hydrodynamic pressure generating grooves, and oil retained in pores of said bearing body by impregnation of lubricating oil or lubricating grease, said method comprising the steps of:

disposing a forming pattern in a die, said forming pattern having a first forming portion for forming a region of said hydrodynamic pressure generating grooves and a second forming portion for forming the other region in said bearing surface, filling powder metal material between said forming pattern and said die, applying a compacting pressure to said powder metal material to form a cylindrical compacted body, while simultaneously forming a region of said hydrodynamic pressure generating grooves and the other region in said bearing surface on an inner peripheral surface of said compacted body by said forming pattern.

24. (Withdrawn) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in claim 23, wherein said bearing surface has a first region in which a plurality of hydrodynamic pressure generating grooves inclined in one direction with respect to the axial direction are circumferentially disposed, a second region which is axially spaced from the first region and in which a plurality of hydrodynamic pressure generating grooves inclined in the other direction with respect to the axial direction are circumferentially disposed, and an annular smooth region positioned between the first and second regions.

25. (Withdrawn) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in claim 23, wherein said bearing surface has a first region in which a plurality of hydrodynamic pressure generating grooves inclined in one direction with respect to the axial direction are circumferentially disposed, a second region which is axially continuous to the first region and in which a plurality of hydrodynamic pressure generating grooves inclined in the other direction with respect to the axial direction are circumferentially disposed.

26. (Withdrawn) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in Claim 23, wherein said powder metal material contains copper or iron, or both as a main component.

27. (Withdrawn) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in Claim 23, wherein after forming said compacted body and said bearing surface thereof, releasing said forming pattern from the inner peripheral surface of said compacted body while utilizing the spring-back of said compacted body due to removal of said compacting pressure.

28. (Currently amended) A method of producing a hydrodynamic porous oil-impregnated bearing comprising a porous bearing body being formed with a bearing surface on an inner peripheral surface thereof, said bearing surface having a plurality of inclined hydrodynamic pressure generating grooves, and oil retained in pores of said bearing body by impregnation of lubricating oil or lubricating grease, said method comprising the steps of:

inserting a forming pattern in an inner peripheral surface of a cylindrical porous blank, said porous blank being made of a sintered metal, said forming pattern having a forming portion for forming said hydrodynamic pressure generating grooves, said forming portion being composed of a plurality of convex portions each of which agrees with each of said hydrodynamic pressure generating grooves,

applying a compacting pressure to said porous blank to press the inner peripheral surface of said porous blank against said forming portion of said forming pattern, thereby forming said hydrodynamic pressure generating grooves in the inner peripheral surface of said porous blank, and

after forming said hydrodynamic pressure generating grooves, ~~removing said compacting pressure, releasing said forming pattern from the inner peripheral surface of~~

~~said porous blank whilst utilizing spring-back of said porous blank due to the removal of said compacting pressure~~ removing said compacting pressure so as to utilize the spring-back of said porous blank in releasing said forming pattern from the inner peripheral surface of said porous blank.

29. (Previously presented) A method of producing a hydrodynamic type porous oil-impregnated bearing as set forth in claim 28, wherein said sintered metal contains copper or iron, or both as a main component.

30. (Cancelled)

31. (Currently amended) A method of producing a porous bearing body of a hydrodynamic type porous oil-impregnated bearing, said porous bearing body being formed with bearing surface on an inner peripheral surface thereof, said bearing surface having a plurality of inclined hydrodynamic pressure generating grooves, said method comprising the steps of:

inserting a forming pattern in an inner peripheral surface of a cylindrical porous blank, said porous blank being made of a sintered metal, said forming pattern having a forming portion for forming said hydrodynamic pressure generating grooves, said forming portion being composed of a plurality of convex portions each of which agrees with each of said hydrodynamic pressure generating grooves,

applying a compacting pressure to said porous blank to press the inner peripheral surface of said porous blank against said forming portion of said forming

pattern, thereby forming said hydrodynamic pressure generating grooves in the inner peripheral surface of said porous blank, and

after forming said hydrodynamic pressure generating grooves, ~~removing said compacting pressure, releasing said forming pattern from the inner peripheral surface of said porous blank whilst utilizing spring-back of said porous blank due to the removal of said compacting pressure~~ removing said compacting pressure so as to utilize the spring-back of said porous blank in releasing said forming pattern from the inner peripheral surface of said porous blank.

32. (Previously presented) A method of producing a porous bearing body of a hydrodynamic type porous oil-impregnated bearing as set forth in claim 31, wherein said sintered metal contains copper or iron, or both as a main component.

33. (Cancelled)

34. (Currently amended) A method of producing a hydrodynamic porous oil-impregnated bearing, a porous bearing body of which is formed with bearing surface on an inner peripheral surface thereof, said bearing surface having inclined hydrodynamic pressure generating grooves, said method comprising the steps of:

inserting a forming pattern in an inner peripheral surface of a porous blank, said forming pattern having a forming portion for forming said hydrodynamic pressure generating grooves, said forming portion comprising a plurality of convex portions, each of which agrees with each of said hydrodynamic pressure generating grooves,

pressing said forming portion of said forming pattern against said inner peripheral surface of said porous blank, thereby making plastic deformation of said inner peripheral surface of said porous blank occur to form said hydrodynamic pressure generating grooves, and

after forming said hydrodynamic pressure generating grooves, ~~removing said pressing, releasing said forming pattern from the inner peripheral surface of said porous blank whilst utilizing spring back of said porous blank due to the removal of said pressing~~ removing said compacting pressure so as to utilize the spring-back of said porous blank in releasing said forming pattern from the inner peripheral surface of said porous blank.

35. (Previously presented) A method of producing a hydrodynamic porous oil-impregnated bearing as set forth in claim 34, wherein said porous blank is formed of a sintered metal.

36. (Previously presented) A method of producing a hydrodynamic porous oil-impregnated bearing as set forth in claim 35, wherein said sintered metal contains copper or iron, or both as a main component.